

A Science Service Feature

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? WHY THE WEATHER ?

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Authority on Meteorology.

JACK FROST IN FLORIDA

When we hear that Jack Frost has wrought destruction in the Florida citrus groves, either one of two things may have happened. This is explained by Messrs. A.S. Rhoads and E.F. DeBusk in a recent experiment station bulletin. One type of freezing weather is due to local conditions, the other to a wide-spread atmospheric disturbance.

"The first type," say these writers, "is commonly designated as radiation frost and usually occurs on still nights as a result of the rapid loss of heat from the earth to the upper atmosphere by radiation. By reason of the high humidity of the lower air layers, this type of freeze is much less common in Florida than in California. In this type the trees in groves or parts of groves in low situations suffer most and the lower parts of trees are commonly injured more than the upper parts.

"The second type of freeze is the so-called 'blown-in' or 'cold wave' type, which may last from one to a few days and is usually accompanied by considerable wind. In such a freeze a large body of cold air is carried down over the state from the north by the migration of a high-pressure area and the conditions usually result in a very rapid radiation of heat from the soil also. Most of the severe freezes in Florida are of this type. In such a freeze the trees in the more exposed situations commonly suffer more than those at lower elevations or those protected by timber, and the upper parts of the trees are often more seriously injured than the lower parts."

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